

Hyponatremia Caused by Abdominal Large Vessel Obstruction

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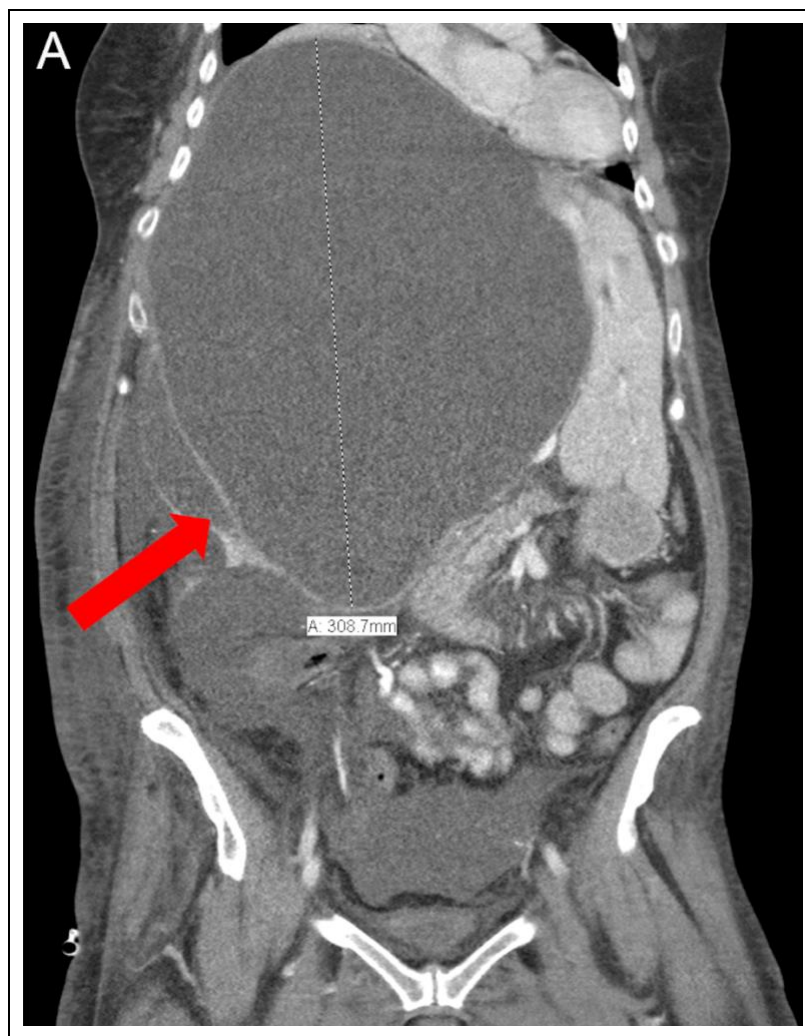
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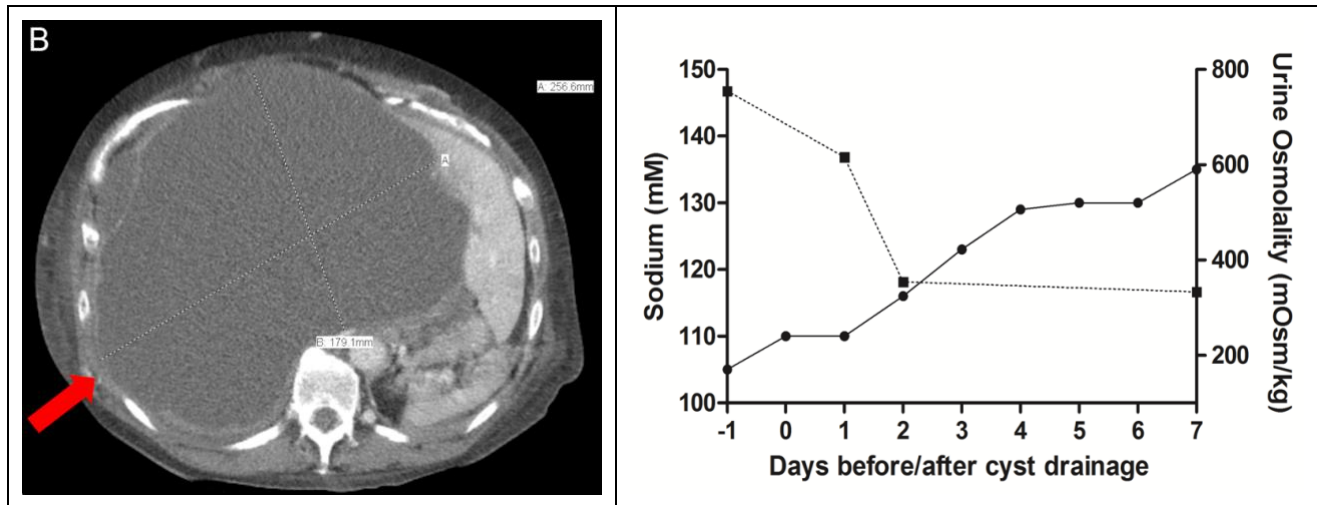
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Received: October 30, 2022; **Accepted:** November 10, 2022; **Published:** November 19, 2022





Clinical Image

A 61-year-old woman without prior medical history presented with hemodynamic and respiratory instability. From hetero anamnesis we obtained the following information: Since approximately one week she had progressive complaints of fatigue, dyspnea and orthopnea, and a weight loss of five kilograms accompanying a decreased appetite. Also, she suffered from forgetfulness, dysarthria and bradyphrenia. Laboratory studies revealed abnormal liver tests, severe hyponatremia (105 mmol/L), low urine sodium (<20mmol/L) and relatively high urine osmolality 755 mOsm/kg (Supplementary Table). Computed tomography showed a 25-centimeter septated cyst causing severe compression of the vena cava inferior and large liver vessels, bile duct dilatation, and deviation of several organs including the heart, kidneys, pancreas and upper gastrointestinal tract (Panels A and B). After drainage of 6.5 liter cyst fluid, the patient's clinical condition improved and the hyponatremia resolved completely (Panel C). Her symptomatic hyponatremia was caused by effective circulating arterial volume depletion, with a consequent auto regulatory response of increased renal sodium and water reabsorption. As cyst fluid cytology did not show any malignant cells, and chemistry and microbiology analyses revealed an infection with *Escherichia Coli*, drainage was continued and antibiotics were administered, before sclerotherapy or surgery was to be considered for prevention of a recurrence.